

Central Phoenix/East Valley Corridor

Phoenix, Arizona

(November 2002)

Description

The Regional Public Transportation Authority (RPTA) is proposing to implement a 25-mile at-grade light rail system to connect the cities of Phoenix, Tempe, and Mesa. As a first step, the RPTA is undertaking Preliminary Engineering on a 20-mile segment from the Chris-Town Mall area, through downtown Phoenix and downtown Tempe, to Mesa. The proposed project would have 27 stations and serve major activity centers including downtown Phoenix, the Sky Harbor Airport, Papago Park Center and downtown Tempe. The Phoenix metropolitan area is one of the fastest growing areas in the United States, and the proposed project would provide a transit alternative to congested roads and also serve as a focal point for new development along the Central Avenue corridor and areas east of the Central Business District including the Sky Harbor Airport, and Tempe and Mesa.

Summary Description	
Proposed Project:	Light Rail Transit 20 Miles, 27 Stations
Total Capital Cost (\$YOE):	\$1.18 Billion
Section 5309 New Starts Share (\$YOE):	\$591.7 Million (50%)
Annual Operating Cost (2025 \$YOE):	\$42.5 Million
Ridership Forecast (2025):	47,670 Average Weekday Boardings 26,300 Daily New Riders
Opening Year Ridership Forecast (2006):	26,700 Average Weekday Boardings
FY 2004 Finance Rating:	Medium-High
FY 2004 Project Justification Rating:	Medium-High
FY 2004 Overall Project Rating:	Highly Recommended

The Central Phoenix/East Valley Corridor is rated *Highly Recommended* based upon the project's cost effectiveness, good transit supportive land use, and the high level of local financial commitment of capital and operating funds for the project. The overall project rating applies to this *Annual Report on New Starts* and reflects conditions as of November 2002. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, schedule and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, schedules, changing conditions, and refined financing plans.**

Project Justification Quantitative Criteria		
Mobility Improvements Rating: Medium		
	<u>New Start vs. Baseline</u>	
Average Employment Per Station	5,399	
Average Low Income Households Per Station	162	
Transportation System User Benefit Per Project Passenger Mile (Minutes)	3.3	
Environmental Benefits Rating: High		
<u>Criteria Pollutants Reduced</u> (tons)	<u>New Start vs. Baseline</u>	
Carbon Monoxide (CO)	635	
Nitrogen Oxide (NO _x)	111	
Hydrocarbons	97	
Particulate Matter (PM ₁₀)	3	
Carbon Dioxide (CO ₂)	63,370	
<u>Annual Energy Savings</u> (million) BTU	8,232,300	
Cost Effectiveness Rating: Medium-High		
	<u>New Start vs. Baseline</u>	
Transportation System User Benefit (current year dollars/hour)	\$12.40	
Operating Efficiencies Rating: Medium		
	<u>Baseline</u>	<u>New Start</u>
System Operating Cost per Passenger Mile (current year dollars)	\$.70	\$.66

[] Indicate an increase in emissions

Status

The RPTA completed the Central Phoenix/East Valley (CP/EV) Major Investment Study (MIS) in the spring of 1998. In September 1998, FTA granted permission to enter the Preliminary Engineering/Environmental Impact Statement (PE/EIS) phase on a 13-mile segment of the corridor. FTA subsequently approved Preliminary Engineering on 20.3 miles of the proposed system. The Maricopa Association of Governments (MAG) (local metropolitan planning organization) adopted the CP/EV Corridor as a fixed-guideway corridor and included the CP/EV LRT project in the long range transportation plan and the current Regional Transportation Improvement Plan (TIP). On March 14, 2000, the City of Phoenix voters passed a sales tax referendum that increased the local sales tax rate by 0.4 percent, all of which will be dedicated to transit development. The RPTA plans to complete the NEPA process and receive a Record of Decision in early 2003, undertake Final Design in 2003, and begin construction in 2004.

Section 3030(a)(62) of TEA-21 authorizes the Phoenix Fixed Guideway project for Final Design and construction. Through FY 2002, Congress has appropriated \$33.67 million for the project.

Evaluation

The following criteria have been estimated in conformance with FTA's *Reporting Instructions for the Section 5309 New Starts Criteria*, updated in June 2002. The project will be reevaluated for next year's New Starts report and when it is ready to advance into Final Design.

Project Justification

Rating: Medium-High

The *Medium-High* project justification rating reflects the good cost-effectiveness and efforts to encourage transit-supportive development in the proposed corridor. Based on 1990 Census data, there are an estimated 4,370 low-income households within a ½-mile radius of the stations, representing 15 percent of all households located within ½-mile of the stations. There are an estimated 145,700 jobs within ½-mile of the stations, representing 23 percent of employment in the station areas. The Phoenix Metropolitan region is a “serious non-attainment area” for ozone, carbon monoxide, and particulates (PM₁₀). The incremental cost per incremental trip is \$12.39.

Existing Land Use, Transit-Supportive Land Use Policies and Future Patterns

Rating: Medium

The *Medium* land use rating reflects the generally low- to medium-densities along the corridor, the number of significant trip generators, and local efforts to encourage transit-oriented development.

Existing Conditions: The proposed alignment is characterized by predominantly low density residential, commercial, and industrial uses with two higher density nodes in downtown Phoenix and downtown Tempe. The corridor serves several high trip generators, including the 20,000 seat America West Arena; the Phoenix Civic Plaza/Convention Center; the 50,000 seat Bank One Ballpark; Sky Harbor International Airport; 75,000 seat Sun Devil Stadium; and the campus of Arizona State University (ASU; 42,000 students), and the Apache Boulevard Redevelopment Area in Tempe east of ASU, which boast the highest residential density in the State. The corridor also contains several of the largest employment centers in the region and 12 percent of metropolitan area employment. Downtown Phoenix and the City of Tempe have instituted strong parking policies, such as the removal of minimum parking requirements for new office and retail development in the CBD.

Future Plans, Policies and Performance: Local jurisdictions and agencies have made some progress in examining and implementing transit supportive plans and policies in the corridor. The Maricopa Association of Governments has produced Pedestrian Area Policies and Design Guidelines to guide member city planning and design efforts. Several small area plans have been revised to accommodate higher intensity, mixed use development. RPTA is working with transit and planning departments of affected cities to develop a TOD model ordinance. Several

significant new developments are being planned along the corridor, including the seven million square foot Rio Salado development. While there is progress with new housing development in downtown Phoenix, plans to support higher intensities of housing in other portions of the alignment are limited.

Local Financial Commitment

Rating: Medium-High

The rating of *Medium-High* for local financial commitment is because of the *Medium-High* rating for the Capital Operating Plan and the *Medium-High* rating of the Operating Financial Plan.

Proposed Non-Section 5309 New Starts Share of Total Project Costs: 50%

Rating: Medium

The financial plan for the Central Phoenix/East Valley LRT MOS includes Section 5309 New Start funds, FHWA Flexible Funding, and funding contributions from the City of Phoenix, the City of Tempe, and the City of Mesa.

Locally Proposed Financial Plan		
<u>Proposed Source of Funds</u>	<u>Total Funding (\$million)</u>	<u>Percent of Total</u>
Federal:		
Section 5309 New Starts	\$591.7	50.0 %
FHWA Flexible Funds	\$19.1	1.6 %
Local:		
City of Phoenix	\$379.1	32.0 %
City of Tempe	\$165.1	14.0 %
City of Mesa	\$28.4	2.4 %
Total:	\$1,183.5	100 %

NOTE: Funding proposal reflects assumptions made by project sponsors, and not DOT or FTA assumptions. Total may not add due to rounding.

Stability and Reliability of Capital Financing Plan

Rating: Medium-High

The *Medium-High* rating reflects the availability of Phoenix and Tempe dedicated transit sales tax revenues to finance the construction and operation of the proposed LRT system and the existing regional transit system. The dedicated transit sales tax revenues and bonds backed by these sales tax revenues will fund 46 percent of the projects capital costs.

Agency Capital Financial Condition: The RPTA is in good financial condition. The existing bus fleet is relatively young (6.45 years) and the cities issuing bonds on behalf of the CP/EV

LRT project have good bond ratings from Standard and Poor's, Fitch, and Moody's. On March 14, 2000, the City of Phoenix voters passed a sales tax referendum that increased the local sales tax rate by 0.4 percent, all of which will be dedicated to transit development. Tempe has had a dedicated transit sales tax of 0.5 percent since 1996.

Capital Cost Estimates and Contingencies: The total capital cost increased by \$2.92 million from FY 2003. The cost estimate appears to be sound and to include sufficient contingencies in the estimated cost. Additionally, the RPTA estimates a future balance in every year as well as unexpended sales tax revenues for all years expect 2003-2005, which may be used to back additional bond issues to fund any capital or operating shortfalls.

Existing and Committed Funding: The Cities of Phoenix, Tempe, and Mesa each have committed funds for the local match from existing, stable sources of funding. The City of Phoenix has a 0.4 percent transit dedicated sales tax and will use these sales tax revenues to issue bonds to finance its share of the project costs. The City of Tempe receives funding from a 0.5 percent transit dedicated sales tax, and the city will use these sales tax revenues to issue bonds to finance its share of the LRT project costs. The City of Mesa has included the proposed project in its Capital Improvements Program.

New and Proposed Sources: No new sources of funding are proposed.

Stability and Reliability of Operating Finance Plan

Rating: Medium-High

The *Medium-High* rating reflects the availability of a dedicated source of revenue to finance the construction and operation of the proposed system and the existing regional transit system.

Agency Operating Financial Condition: The current and recent historic cash flows reveal that between 20 and 30 percent of operating expenses have been covered by fare revenues. There have been no recent cutbacks or reductions in service; in fact, the vehicle revenue miles have been increasing since 1996. Additionally, the RPTA has a cash balance present at the end of each year for unexpected expenses or shortfalls.

Operating Cost Estimates and Contingencies: Annual operating costs for the proposed project are estimated at \$15 million when the system is scheduled to open in 2006, and well increase to \$42.5 million in 2025. Cost estimates and escalation factors are reasonable.

Existing and Committed Funding: The operating costs not covered by the CP/EV LRT fare revenues will be met with existing, stable sources of local funding including Phoenix and Tempe dedicated transit sales tax revenues and general funds from the City of Mesa. The City of Mesa general funds are considered planned at this point because Mesa has been actively involved in the planning of the CP/EV LRT but has not formally committed the funds through a referendum or appropriation process.

New and Proposed Funding Sources: No new sources of funding are proposed.

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